

## Directors' Remuneration, Firm Performance and Political Connection: Evidence from State-Owned Enterprise (SOE) in Malaysia

*(Ganjaran Pengarah, Prestasi Firma dan Hubungan Politik: Bukti dari Syarikat Milikan Kerajaan (SOE) di Malaysia)*

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### ABSTRACT

*The objective of this paper is to examine the relationship between directors' remuneration and firm performance among state-owned enterprise (SOE) in Malaysia. In addition, we examine whether board size and government's role moderate the relationship between directors' remuneration and firm performance in SOE. Using panel data regression model on 118 firm-year observations of state-owned enterprise in Malaysia from 2011 to 2013, this study finds there is positive relationship between directors' remuneration and firm performance. The result provides supports that directors' remuneration acts as incentive to board of directors to perform their monitoring task. The result also indicates that larger board size and government play an important role in enhancing firm performance of state-owned enterprise in Malaysia. Nevertheless, when we interact both variables with directors' remuneration, the result indicates that larger board size and political connected directors moderate the positive relationship between firm performance and directors' remuneration. Our result provides evidence that the interaction between directors' remuneration and board size as well as political connected directors explain firm performance among state owned enterprise in Malaysia.*

*Keywords: State-owned enterprise (SOE); directors' remuneration; firm performance; political connection*

### ABSTRAK

*Objektif makalah ini adalah untuk mengkaji hubungan antara ganjaran pengarah dan prestasi firma di kalangan syarikat milik kerajaan negeri (SOE) di Malaysia. Di samping itu, kami mengkaji sama ada saiz lembaga pengarah dan peranan kerajaan menyederhanakan hubungan antara ganjaran pengarah dan prestasi firma dalam SOE. Dengan menggunakan model regresi data panel ke atas 118 firma perusahaan milik kerajaan negeri di Malaysia dari tahun 2011 hingga 2013, kajian ini mendapati terdapat hubungan positif antara imbuhan pengarah dan prestasi firma. Dapatan analisa ini menyokong pernyataan bahawa ganjaran pengarah bertindak sebagai insentif kepada lembaga pengarah syarikat untuk melaksanakan tugas pemantauan mereka. Dapatan analisa juga menunjukkan bahawa saiz lembaga pengarah yang lebih besar dan hubungan dengan kerajaan memainkan peranan penting dalam meningkatkan prestasi firma milikan kerajaan negeri di Malaysia. Walau bagaimanapun, apabila diinteraksikan kedua-dua pemboleh ubah dengan imbuhan pengarah, hasilnya menunjukkan bahawa saiz lembaga yang lebih besar dan pengarah yang ada hubungan dengan politik menyederhanakan hubungan positif antara prestasi firma dan ganjaran pengarah. Dapatan analisa kami memberikan bukti bahawa interaksi antara ganjaran pengarah dan saiz lembaga pengarah serta pengarah yang ada hubungan politik merupakan faktor yang mempengaruhi prestasi firma milikan kerajaan negeri di Malaysia.*

*Kata kunci: Syarikat Milikan Kerajaan Negeri (SOE); ganjaran pengarah; prestasi firma; hubungan politik*

### INTRODUCTION

A lot of researches have been done previously to test the relationship between directors' remuneration and firm performance. Most of the studies done focus on the listed firms due to market forces demand on the efficiency of listed firms (Ozkan 2011; Sigler 2011; Horton, Millo & Serafeim 2012; Lam, McGuinness & Vieito 2013). There are less studies on the efficiency of state-owned enterprise due to the strong government intervention (He, Chiu & Zhang 2015). Yet, state-owned enterprise is frequently regarded as a major cause of corporate inefficiency (Capobianco &

Christiansen 2011) due to factors such as bureaucratic interference, captive equity, conflicting objectives, and weak managerial incentives. The political influence that the government has over those firms results in a relation-based rather than a market-based contract (Ball, Kothari & Robin 2000; Ball, Robin & Wu 2003). The enterprise has to maintain close relationship with their major stakeholders such as governments, banks and financial institutions which lead to inefficiency of governance mechanisms and firm performance (Hu & Leung 2012).

The evidence on the performance of state-owned (SOE) enterprise in Malaysia is rather scarce. Most of the previous literatures on state-owned enterprise focus in emerging countries such as China and Hong Kong (Wang & Yung 2011; Hu et al. 2013; He et al. 2015). The result is rather mixed. Hu and Leung (2012) found that top management turnover is negatively associated with firm performance suggesting that the market-based corporate governance mechanism used in these companies has successfully penalized and disciplines the top executives that perform poorly. Their additional analysis further revealed that the government control strengthen rather than weakens the relationship between the turnover governance mechanism and firm performance. Their result highlights the positive role of government in state-owned enterprise. In contrast, He et al. (2015) found that the inefficiency of state-owned enterprise in China mainly due to corporate governance mechanism. Their results highlight that the state-owned companies improper corporate governance, bringing down these firms' efficiency due to unclear property rights.

Therefore, the first objective of this study is to examine whether there is an association between directors remuneration and firm performance among state-owned enterprise in Malaysia. For the purpose of this study, we used two measures of firm performance which are asset based performance measured by Return on Asset (ROA) and equity based performance measured by Return on Equity (ROE). Cornett et al. (2007) state that ROA is the best measures for current performance, meanwhile ROE is better measures of executives' ability (Jaafar, Wahab & James 2012). Many efforts have been done to improve the efficiency of state-owned enterprise such as improvement of incentive system, privatization and corporatization. We focus on the compensation mechanism as this mechanism is recognized as one of the internal governance mechanism that can effectively incentivize board of directors to perform well in their monitoring task. Board of directors is supposed to advise and monitor top management, and hence protect the interests of shareholders. Based on the agency theory, leaving the directors' alone will not ensure the board will act on behalf of their shareholders. Thus, the compensation packages of this top level will motivate the top management team align their interest with the shareholders' interest (Jensen & Zimmerman 1985; Murphy 1986) and maximizing shareholder value (Brick, Palmon & Wald 2006).

Most of the observers agree that the objectivity in monitoring management by the board of directors may be compromised with the high compensation. Hu and Leung (2012) raise question on whether the market-based governance mechanism are effectively used in corporate business especially in corporate businesses with government control or influence. This is especially highlighted in state-owned enterprise where government control is more intense. For example, in year 2012 Malaysian Chief Auditor in National Audit report revealed that there is bad management in state-owned enterprise in Kelantan due to payment of hefty bonuses in spite of losses in one of its subsidiary. In 2014, Land and Mines Office (PTG) and Perlis State Economic Development Corporation (PKENPs) has been reprimanded by the Auditor General because of the inefficiency and poor in terms of management and action. The news has raised the issue of transparency, integrity and efficiency of state owned enterprise in Malaysia.

The role of government in state-owned enterprise is highlighted in two ways. First, the government may control as the largest shareholder and thus have higher concern on the profitability of the business. The concern is then released on the board of directors by rewarding certain amount of compensation to ensure that the target is achieved. The board of directors are then release the pressure on top management team which may or may not align the interest of shareholders. Second, the government officers appointed in the state-owned enterprise may use the state-owned enterprise for the sake of their self-political interest rather than economic and social interest of the companies, thus lead to inefficient of compensation-governance mechanism. Therefore our second objective is to examine the role of government and other corporate governance mechanism in the association between directors' remuneration and firm performance of state-owned enterprise.

We hypothesize that directors' remuneration in SOE enhance firm performance based on optimal contracting theory which view remuneration as a remedy that can align the interest between managers and shareholders. We also hypothesize that board size influence firm performance but in negative direction as larger boards may lead to difficulties in making decisions. We put generally hypothesis that there is an association between political connection and firm performance as there is scarce evidences on the effect of political connection in SOE in emerging countries like Malaysia. Lastly, we hypothesize that both larger board size and political connection moderate the relationship between directors' remuneration and firm performance in SOE.

Our result indicates that there is positive association between all the main variables and firm performance supporting the view that directors' remuneration, larger board size and government control enhance firm performance of SOE. Nevertheless, our interaction variables board size as well as political connection with directors' remuneration

lead to reduction in firm performance indicating that when larger board size or political connected directors pursue their own interest using directors' remuneration, it will lead to reduction in firm performance. Despite of that, the result is only applicable to asset-based performance, not equity based performance.

Our study contribute in the following ways, First we extend the literatures on the relationship between directors' remuneration and firm performance as well as other variables such as board size and political connection in emerging countries like Malaysia since this country present unique institutional setting. Second, this study shed the light on the performance of private SOE in Malaysia as most of previous studies highlight on performance of SOE in China and most of them are listed companies (Canyon & He 2011; Yu 2013). Third, this study provide implication to the regulators on proper governance of SOE to ensure transparency and efficiency of SOE.

The paper is organized as follows. In Section 2, we present the background of SOE in Malaysia. Then in Section 3 we present literatures and hypothesis development on all the main variables. In Section 4 we discuss our research design and lastly, in Section 5 we present our empirical results. We conclude the implications of our research in Section 6.

## BACKGROUND OF THE STATE-OWNED ENTERPRISE IN MALAYSIA

A state-owned enterprise (SOE) is a legal entity that carry out commercial activities on behalf of the government which is the owner of the enterprise. In SOE, state becomes the stockholder of the business entity that operates the commercial affairs. Therefore, SOE is different from other forms of government agencies or state entities which are established to pursue purely non-financial objectives. The objective of SOE is mainly on the economic interest even though they might also have its own public policy objectives. This legal entity might operate as a not-for-profit corporation or as a commercial enterprise and a natural monopoly to support the government. Governments may use SOE they own to support the general budget of a country.

SOE play an important role in to the economic development of a country. According to Kwiatkowski and Augustynowicz (2015) the importance of SOEs in the global economy in recent years is increasing. This situation is mainly driven by the growth of emerging economies. Kowalski et al. (2013) estimates that, 204 out of the 2000 largest companies were state-owned in 2011.<sup>1</sup> They contributed for more than 10% (\$3.6 trillion) of the overall sales and their aggregate market value (\$4.9 trillion) corresponds to 11% of the overall market capitalization of all listed companies. Malaysia is among the seven countries that has the highest of SOE's shares after China. These seven countries with the highest SOE shares collectively account for more than 20% of world trade (Kowalski et al. 2013).

In Malaysia, SOE play a very significant role too as such enterprises also act as driving force for infrastructure and industrial projects in this country. SOEs in this country are also referred to as Government Linked Companies (GLCs). The government ownership can either be direct or indirect at federal or state level. At the federal level, the government owned companies are referred as Government Linked Companies (GLCs) and Government-Linked Investment Corporations (GLICs). The government owns approximately 36 percent of the value of firms listed on the Bursa Malaysia through its seven Government-Linked Investment Corporations (GLICs) (Malaysian Competition Commission 2012). The same principle is also applied at state level. At the state level, the enterprise can either be state-level GLCs and state-level GLICs known as SOE. The government has multiple roles in SOE regime in Malaysia. They act as developer and provider of public goods, investor, owner and operator of the production of goods and services as well as regulator to provide level playing field in the market (Dorai Raj 2012).

GLCs in Malaysia are owned by the federal government through its seven government-linked investment companies (GLICs), which are Khazanah Nasional, Permodalan Nasional Berhad, Kumpulan Wang Simpanan Pekerja, Kumpulan Wang Persaraan, Ministry of Finance Incorporated, Lembaga Tabung Angkatan Tentera and Lembaga Tabung Haji. SOEs with publicly traded shares must produce audited financial statements every year. They are also required to submit filings related to any changes in the organization's management. Nevertheless, the SOEs' private companies that do not offer publicly traded shares are only required to submit annual reports to the Companies Commission. The limited requirement for reporting and auditing the financial standing and scope of activities of this type of SOEs arise the issue of financial reporting quality and transparency. In addition, SOEs are claimed as inherently inefficient due to close relationships that most of SOEs' board have with senior government officials and less attention on their governance practices. Despite of that, SOEs have contributed positively to the national economy, leading the government's bumiputra agenda, reducing unemployment and encouraging diversity.

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### STATE-OWNED ENTERPRISE AND ITS GOVERNANCE

Previous researches have indicated that SOEs are usually associated with inefficiency and poor governance (He et al. 2015; Menozzi, Gutiérrez Urtiaga & Vannoni 2011). This inefficiency is due to several reasons. First, SOE has a unique feature of ownership structure where state and government has control over the stake of SOE. Thus, SOE may not act in the best interest of the public; rather it may act as a kind of parliament that represents the interest of political figures such as ministries (Menozzi et al. 2011). These political authorities may use SOE to achieve their short term political goals at the expense of the citizens. This significant political influence could lead to the emergence of 'stakeholder-governance' model which is characterized by a relation-based contract rather than a market-based contract (Hu & Leung 2012).

Second, in contrast to private firms, the governance of SOE heavily depends on the internal governance control system instead of external governance instruments like potential takeovers and proxy contest. The absence of these external governance instruments reduces the incentives of board members and managers in SOE to maximize the value of the company (Menozzi et al. 2011). In addition, SOE have less pressure on cost due to their impossibility of bankruptcy and soft budget constraint. Cull and Xu (2000) stated that SOE has less threat to renew credit in bank as they expect to be bailed out by the government if they get into trouble. In term of financial support, SOEs' managers were given much more discretion over production and investment decisions by the financial institutions.

Thirdly, SOE are more exposed to "twin-agency" problems which are Type-1 and Type-2 agency problems (Liang, Renneboog & Sun 2015; Stulz 2005). Type-1 agency problem is the agency problem between the principal and managers, whereas type-2 agency problem is the conflict of objectives between majority and minority shareholders. In type-1 agency problem, the state and government may not have interest on the economic performance of SOE as they are more concern on their political status. This situation leads the managers of SOE to act in the best of their self-interest. In type-2 agency problem, state and government as majority shareholders may try to exercise control over SOE to pursue their political and economic objectives at the expense of other minority shareholders. Both types of agency problems eventually lead to lower efficiency of SOE as highlighted by the World Bank and OECD.

### DIRECTORS' REMUNERATION AND FIRM PERFORMANCE

The pay-performance relationship is the most studied topic either in Asian or Western executive compensation research (Sun 2010). The link is mainly discussed in agency theory perspectives which emphasize that remuneration act as a mechanism to minimize the agency problem and thus align the interest of managers and shareholders (Jensen & Meckling 1976). Remuneration is expected to enhance firm performance as it provides incentive to the managers to maximize shareholder value and incentive to board of directors to perform their monitoring task. In spite of that, Liang et al. (2015) argue that the economist propose two broad theories to explain this pay-performance relationship which are optimal contracting theory and managerial power theory. Optimal contracting theory regards remuneration as a remedy against this agency problem, meanwhile managerial power theory regards remuneration is one of the agency problem itself (Bebchuk, Fried & Walker 2002). Melis, Gaia and Carta (2015) contend that controversy arise when payment is excessive which could lead to information asymmetry unless there is time and adequate disclosure. This is among the reason why directors' remuneration has also been blamed as a key factor for international corporate scandals and global financial crisis.

Bebchuk and Fried (2003) assert that the unrestrained managerial power could lead to excessive managerial power in absence of internal or external governance mechanism. This is true in some countries where market and industries are highly regulated and subject to political interference which at the end can distort the managerial incentive to maximize shareholder value. Liang et al. (2015) point out that in a competitive market, compensation or remuneration should be molded by labor market for talent, institutional investors' monitoring and board of directors' structure. Nevertheless, the political involvement such as government intervention as controlling shareholder could also play an important role in determining directors' remuneration. The impact of this intervention on compensation has not been adequately addressed especially in emerging countries like Malaysia. Developed countries like U.S. may not be the best sample to study the influence of political determinants on directors' remuneration as in these countries the direct involvement of state is rare. In addition, SOE present as a unique sample as it has "twin-agency problems".

The study on the effect of directors' remuneration and firm performance in SOE is rather scarce. Most of the studies that have been done mostly focused on emerging countries like China. Conyon and He (2011) investigate the relationship between executive compensation and China's publicly traded firm's performance. Their result indicates

that consistent with agency theory, there is positive relationship between executive compensation and firm performance. Nevertheless, when they split the sample into state and non-state firms, the correlation between pay and performance is weaker in state privately controlled firms. Their result shows that executive pay and CEO incentives are lower in state controlled firms and firms with concentrated ownership structures. In addition, they find that non-state controlled firms and firms with more independent directors on the board are more likely to replace the CEO for poor performance.

Yu (2013) examine the relationship between state ownership and firm performance by applying panel data regression techniques to 10,639 firm-year observations of non-financial Chinese listed firms during 2003 to 2010. In contrast to Conyon and He (2011), their results show that state ownership has a U-shaped relationship with firm performance. The Split Share Structure Reform in 2005–2006 in this country has played a positive role in enhancing the relationship between state ownership and firm profitability ratios. Although state ownership decreased significantly after 2006, it remains high in important industry sectors such as the oil, natural gas and mining sector and the publishing, broadcasting and media sector. The results reveal that a higher level of state ownership give more benefits to SOE as compared to a dispersed ownership structure due to the government support and political connections.

Despite the different views on the relationship between firm performance and directors' remuneration, we believe that directors' remuneration is part of motivation tool to the board of directors to enhance their performance, supporting the optimal contracting theory. Therefore we hypothesize that:

H<sub>1</sub> There is positive relationship between directors' remuneration and firm performance

#### BOARD SIZE AND FIRM PERFORMANCE

The importance of corporate governance is undeniable as it has been recognized as a mechanisms designed to mitigate agency problems that arise from the separation of ownership and control in a company (La Porta, Lopez-de-Silanes & Shleifer 2002; Shleifer & Vishny 1997). Thus, corporate governance has been debated as one of the firm performance determinants and has been the subject of a large body of literature either theoretical or empirical. SOE are more dependent on internal corporate governance mechanisms rather than external mechanisms. In the internal governance mechanism, boards of directors play a central role as they are in charge of monitoring management including assessing executives' performance, determining the size of bonuses and implementing incentives to motivate managers (Menozzi et al. 2011).

One of the board characteristics that prominently discussed in corporate governance literatures is board size. There are mixed evidences from the literature as one view that larger board size may compromise better decisions made and thus may eventually affect firm performance negatively (Lipton & Lorsch 1992; Jensen 1993; Yermack 1996). The idea is larger board size will lead to increased problems of communication and coordination thus decreased ability of the board to control management, thereby leading to agency problems (Eisenberg, Sundgren & Wells 1998). Nevertheless, previous literatures (Boone et al. 2007; Coles, Daniel & Naveen 2008; Guest 2008; Linck, Netter & Yang 2008) have provided evidence that board size is determined by firm specific variables, such as Tobin's Q, profitability and firm size. Coles et al. (2008), for example, find that the impact of board size on firm value is positive for large firms. Their result is consistent with resource dependence theory which emphasize the role of board directors as provider of critical sources to the firm. According to the theory, board of directors are firm's critical resource to respond to the external environment in enhancing firm's performance (Hillman, Withers & Collins 2009). Pfeffer and Salancik (1978) suggest that directors play four important roles to organizations which are advisor and counsellor, intermediaries between the firm and environmental contingencies, (c) preferential access to resources, and as a legitimacy.

In addition, Guest (2009) state that the relationship between board size and performance may also determined by national institutional characteristics. He stresses that in countries with different institutional backgrounds, the functions of boards may be different, and therefore the relationship between board size performance relation may be expected to differ.

The research on the effect of board size among SOE is rather scarce. Bozec and Dia (2007) analyze the relationship between board and performance for a group of 14 Canadian SOEs. Their results of multivariate analysis suggest that board size is positively related to firm technical efficiency only when SOEs are exposed to market discipline. Their result reveals that the average board size for these firms are 11.9 directors. Menozzi et al. (2011) confirm the result found by Yermack (1996) when they found that larger board size affect firm performance negatively. Using ROA and ROE as firm performance measure they found that larger board size reduce firm

performance in 114 Italian SOE from 1994-2004. Their findings indicate that on average boards in Italian SOE composed of less than seven directors.

It is believed that larger board size may lead to difficulties in making decisions and thus having too many directors on board will eventually harm the firm value. Therefore we posit that:

H<sub>2</sub> There is negative relationship between board size and firm performance in SOE.

#### POLITICAL CONNECTION AND FIRM PERFORMANCE

The evidence on the effect of political connection on remuneration has long been debated by the literatures. Jensen (1993) has referred this connection or cronyism as part of board culture which impede constructive criticism. Hu and Leung (2012) suggest that the presence of government control in SOE can either give *substitutive effect* or *complementary effect*. Based on the substitutive effect, the strong government control can act as a substitute to the governance mechanism due to three reasons. First, the presence of government control may induce firm to pursue political and social objective rather than economic performance of firm. Second, government control may rely on insiders information rather than the information from capital market, which create noise to firm performance. Lastly, government presence has less incentives to appoint the best person as top management as they are politically motivated.

In contrast, the complementary effect hypothesized that government control will act as a complement to governance mechanism, thus enhance firm performance. The strong government control especially in SOE could act as a monitoring mechanism to the managers that misappropriate company's assets. The tight of government control may render the managers to the system that penalize managers who have self-interest incentives instead of firms' value maximization. The system also serves an important mechanism to discipline and dampen the aggressive behavior of managers.

The results on the effect of political connection or government control on firm performance in SOE are rather mixed. Previous literatures (Hu & Leung 2012; Yu 2013) have indicated that the presence of government and political control as well as state ownership give benefits to the SOE in term of financial and resources support. The result of those studies provide evidence that state ownership in China between 2001 – 2010 act as compliment to the governance mechanism and thus play a positive role in enhancing firm performance (Yu 2013), strengthen turnover-performance mechanism (Hu & Leung 2012) and reduce managerial pay level (Liang et al. 2015). Their results are consistent with the view that government control can serve as a remedy to lack of pro market institutions (Xu, Zhu & Lin 2005), poor investor protections (Hu & Leung 2012) and excessive executive compensation (Liang et al. 2015).

In contrast, many studies provide evidences that state or government ownership in SOE negatively affect firm performance (Menozzi et al. 2011), CEO pay (Cao, Pan & Tian 2011), market forces (Hu et al., 2013) and lead to lowest inefficiency (He et al. 2015). Most of the studies done in SOE in emerging countries China as well as code country i.e Italy in which debt financing systems depend very much on internal funds, ownership structures are more concentrated, less shareholder activism and low legal enforcement. Their study propose that government control and state ownership give substitute effect to the governance mechanism and thus lead to undesirable managerial entrenchment. Since there is lack evidence on the effect of government control or state ownership in emerging countries like Malaysia, we posit hypothesis that:

H<sub>3</sub> There is an association between political connection and firm performance

We also conduct further test to investigate whether board size and government's role moderate the relationship between directors' remuneration and firm performance. Based on the hypotheses above, we further hypothesize that:

H<sub>4</sub> Larger board size moderate the relationship between firm performance and directors' remuneration

H<sub>5</sub> Political connection moderate the relationship between firm performance and directors' remuneration

## RESEARCH METHODOLOGY

### SAMPLE SELECTION AND DATA SELECTION

Our initial sample consists of 459 firm-year observations from ten states in Malaysia which are Kedah, Kelantan, Terengganu, Melaka, Negeri Sembilan, Pahang, Perlis, Selangor, Sabah and Sarawak over the period of 2011 -2013. The period was chosen as Economic Transformation Programme (ETP) in Malaysia was launched in September 2010 and one of the Strategic Reform Initiatives (SRIs) under government's role in business is to establish good governance for state-owned companies. We exclude three states which are Perak, Johor and Pulau Pinang from our sample due to unavailability of financial statements. From these observations, we exclude 39 observations from public listed companies as we focus on private state-owned enterprise. We also exclude 302 observations due to missing of financial data as well as governance data yielding a final sample of 118 observations. There is huge amount of missing data due to voluntarily of disclosing financial statement among the SOE. The distributions of observations for the state-owned enterprises are presented in Table 1.

TABLE 1. Data distribution of sample firms

Description	Number of observations
Initial sample	459
(-)Observations from public listed companies	39
(-) missing data	302
Final Sample	118

Data are hand-collected from the financial statements of SOE which can be obtained from Suruhanjaya Syarikat Malaysia (SSM). The minimum data required for each year firm observation are the firm's financial data such as total assets, total equity, total liabilities and net income and the firm's governance data which are directors' remuneration, board size and number of political connected directors. The data are analysed using panel data analysis. Considering the cross sectional time series effects, panel data is a more appropriate method than pooled ordinary least squares (OLS), which ignores the panel structure of the data and treats observations as being serially uncorrelated for a given firm, with homoscedastic errors across firms and time periods. We use fixed effect panel data as we believe that there are omitted variables, and these variables are correlated with the variables in our model. According to William (2018), if there are omitted variables, and these variables are correlated with the variables in the model, then fixed effects models may provide a means for controlling for omitted variable bias. Fixed effect panel data control for omitted variables that differ between cases but are constant over time (Balsari, Ozkan & Durak 2010). In addition, serial correlation of period SUR is reported for regressions to correct for heteroscedasticity and general correlation of observations within a cross-section. This study fills the gap of previous researches as most of the data in previous researches of SOE are analysed using OLS regression.

### DEPENDENT VARIABLES

Following Jaafar et al. (2012), we measure firm's performance by accounting based measures such as Return on Assets (ROA) and Return on Equity (ROE). ROA is measured as the ratio of net income to total assets and ROE is ratio of net income to total equity. Jaafar et al. (2012) stressed that both measures are profitability ratios in financial accounting statements which reflects shareholders' wealth.

### INDEPENDENT VARIABLES

Our independent variables are directors' remuneration, board size and political connection. We use total cash based directors' remuneration (DREM) which consists of directors' allowance, fee and reward. This measure has been used extensively in previous researches (Cao et al. 2011; Liang et al. 2015). We exclude other compensation such as directors' benefit and meeting allowance due to data limitations. Board size are measured as number of board of directors (BSIZE), while political connection is measured as percentage of political connected directors in the board (POLCON) which is number of political connected directors divided by total number of boards. We define political connection as those who have close relationships with government or sit in government positions such as state

assembly member, state government exco, member of parliament and state secretary. Thus, if the data is disclosed as not related to any of these definitions, then the board of director is considered as not political connected.

### CONTROL VARIABLES

For the purpose of this study, we control for firm size (SIZE) and leverage (DEBT). Firm size is measured by the natural log of the book value of the total assets. Meanwhile leverage is equal to ratio of total debt to total assets which measure for firms' financial risk (Hu & Leung 2012). Both variables have been used extensively in previous researches (Brick et al. 2006; Hu & Leung 2012; Jaafar et al. 2012; Liang et al. 2015). It is expected that there is positive relationship between firm size and directors' remuneration as larger firms are likely to be characterized by more complex activities and more likely to face political costs (Andreas et al. 2012; Melis et al. 2015). Thus they have tendency to invest in corporate monitoring performance mechanism. Meanwhile, it is hypothesized that leverage is negatively related to directors' remuneration as firm's financial problem lead to reduce directors' remuneration. Table 2 provides the operational definition of variables used in this study.

TABLE 2. Operational definition of variables

Symbol	Definition	Source
<b>Panel A</b>	<b>Dependent variables</b>	
<i>ROA</i>	ratio of net income to total assets	Annual report
<i>ROE</i>	ratio of net income to total equity	Annual report
<b>Panel B</b>	<b>Independent variables</b>	
<i>DREM</i>	SOE directors' allowance, fee and reward	Annual report
<i>BSIZE</i>	number of board of directors	Annual report
	number of political connected directors divided by total	
<i>POLCON</i>	number of boards	Annual report
<b>Panel C</b>	<b>Control variables</b>	
<i>SIZE</i>	natural log of the book value of the total assets	Annual report
<i>DEBT</i>	ratio of total debt to total assets	Annual report

### EMPIRICAL MODELS

In order to test the relationship between firm performance and directors' remuneration, we use the following model:

$$ROA_{it}/ROE_{it} = DREM_{it} + Control\ variables_{it} + \epsilon$$

We also test the relationship between firm performance and corporate governance variables and institutional variables which are board size and among the state-owned enterprise in Malaysia. Therefore we use the following model:

$$ROA_{it}/ROE_{it} = DREM_{it} + BRD\_SIZE_{it} + POLCON_{it} + Control\ variables_{it} + \epsilon$$

For further test, we interact directors' remuneration with corporate governance variables and institutional variables in order to test those variables align or entrench the relationship between firm performance and directors' remuneration. We use the following model:

$$ROA_{it}/ROE_{it} = DREM_{it} + BRD\_SIZE_{it} + POLCON_{it} + BRD\_SIZE_{it} * REM_{it} + POLCON_{it} * REM_{it} + Control\ variables_{it} + \epsilon$$



## EMPIRICAL FINDINGS

### DESCRIPTIVE STATISTICS

Table 3 presents the descriptive statistics for the variables that we use for firm performance, directors' remuneration and control variables. The means (medians) for ROA and ROE are positive which is 0.02 and 14.02 respectively (0.03 and 0.10). The mean (median) for directors' remuneration among the state owned enterprise in Malaysia is RM67,115.27 (RM50,755.00). The maximum directors' remuneration among state owned enterprise is RM71,1071. Nevertheless, the minimum directors' remuneration is only RM1,702.00. The mean (median) board size in state owned enterprise is 8.5 (9). The maximum number for board size is 16 and the minimum is 3. The size is quite large and nearly similar to listed companies. The mean for political connected directors among state owned enterprise is 13 percent. Meanwhile the maximum number for political connected directors is 67 percent. The mean for total asset and debt is 53 million and 0.99 respectively.

TABLE 3. Descriptive statistics

	Mean	Median	Maximum	Minimum	Std. Dev.	Percentile 25%	Percentile 75%
ROA	0.02	0.03	4.61	-3.51	0.71	-0.013	0.081
ROE	14.02	0.10	1558.86	-4.51	143.52	0.001	0.223
DREM	67115.27	50755.00	711071.00	1702.00	82354.83	20000.000	84000.000
BRD_SIZE	8.50	9.00	16.00	3.00	3.18	5.000	11.000
POLCON	0.13	0.00	0.67	0.00	0.18	0.000	0.143
SIZE	5.31E+07	1.74E+07	7.31E+08	2.83E+05	1.07E+08	2051321	37141924
DEBT	0.99	0.08	29.87	0.00	3.81	0.016	0.379

We also provide the 25<sup>th</sup> and 75<sup>th</sup> percentiles of the sample. The data in Table 3 indicates that 75 percent of the SOE have ROA and ROE below 0.081 and 0.223 respectively. 50% of the SOE have directors' remuneration between RM20,000 and RM84,000 per year. Meanwhile, in term of board size, 75 percent of the SOE have board size of 11 or below. For political connection, 75% of the SOE have political connected directors 14 percent and below. The result indicates that most of the SOE are not political connected, even though the maximum number of political connected directors are 67 percent. Our data distribution indicates that there is high political connected directors in one of the state in this country which is Kelantan, while the others is quite the same with 1 to 3 directors out of their board size are political connected.

### CORRELATION ANALYSIS

In Table 4, we report both Pearson and Spearman correlation coefficients for the variables used in the regression and this include Pearson and Spearman-rank (italicised) correlations. Our variables of interest are the relation between ROA and ROE with REM. The result indicates that for both Pearson and Spearman correlation, there is no evidence that there is significant correlation between firm performance and directors' remuneration of SOE in Malaysia. Nevertheless, there are positive significant correlation between firm performance and board size (p-value significant at 1%). Using Pearson correlations, the result indicates that larger board size enhance firm performance of SOE. Other variables that show significant result are SIZE and REM, BRD\_SIZE and POLCON, BRD\_SIZE and SIZE, ROA and DEBT. All the variables are significant using Pearson correlations. The result indicates that larger firms have higher directors' remuneration and larger board size. In addition, larger board size have large proportion of political connected directors and firms that have high liability have lower return on asset.

TABLE 4. Correlation matrix

Correlation	ROA	ROE	DREM	BRD_SIZE	POLCON	SIZE	DEBT
ROA		<b><i>0.008*</i></b>	<b><i>0.112</i></b>	<b><i>0.168</i></b>	<b><i>-0.168</i></b>	<b><i>0.035</i></b>	<b><i>-0.264</i></b>
ROE	0.116		<b><i>-0.126</i></b>				
DREM	0.011			<b><i>-0.213</i></b>			
BRD_SIZE	0.172*	0.183**	0.294***		<b><i>0.083</i></b>	<b><i>0.121</i></b>	<b><i>-0.179</i></b>
POLCON	0.033	-0.033	0.004	0.165*		<b><i>0.106</i></b>	<b><i>0.115</i></b>

SIZE	0.008	-0.047	0.176*	0.154*	0.114	<b>-0.098</b>
DEBT	-0.271***	-0.024	-0.124	-0.086	0.137	-0.100

#### MULTIVARIATE ANALYSIS

Table 5 present the effect of directors' remuneration and corporate governance on firm performance measured by ROA. The first model we test on the relationship between ROA and directors' remuneration. We find insignificant relationship between these two variables. Then we add board size and political connection variables and find no significant effect on firm performance for all variables except for board size. The result indicates that larger board size enhance firm performance supporting the view from resource dependence theory that firms with large corporate boards will have greater diversity, skills, experience, and business contacts (Ahmad et al. 2016). Based on the theory, corporate boards is an essential link between the company and its environment and the external resources on which a company depends (Lückerath-Rovers 2013). Lückerath-Rovers (2013) list four benefits of corporate boards which are sources of information, channel for communication, linkages for commitment of support and value in legitimizing organizations. Mangena, Taurigana and Chamisa (2012) state that larger board size will influence firms to perform well in competitive environments and will have greater opportunity to acquire critical resources during crisis times. Aebi, Sabato and Schmid (2012) have documented that the positive relationship between board size and firm performance could be expected when business structure become more complex.

We further test the relationship between firm performance and directors' remuneration by interacting directors' remuneration with board size and political connection variables. The result is quite surprising as all tested variables are significant except for firm size. The result indicates that directors' remuneration enhance firm performance and it is significant at 5 percent level ( $p < 0.05$ ). The result provide supports that directors' remuneration acts as incentive to board of directors to perform their monitoring task, supporting optimal contracting theory which view remuneration as a remedy against this agency problem ((Bebchuk et al. 2002). Thus, it supports H<sub>1</sub>. The result for board size and political connection also shows significant positive relationship at 5 percent level and 1 percent level. The result indicates that larger board size and government play an important role in enhancing firm performance of state-owned enterprise in Malaysia. Nevertheless, when we interact both variables with directors' remuneration, the result indicates that larger board size and political connected directors moderate the positive relationship between firm performance and directors' remuneration. Our result provides evidence that the interaction between directors' remuneration and board size as well as political connected directors explain firm performance among state owned enterprise in Malaysia. Our result provide evidence that the presence of larger board size and political control may use directors' remuneration to pursue their own interest by increasing directors remuneration and thus lead to decrease in firm performance, The result support the view that government control give substitute effect to the governance mechanism through increment in directors remuneration and hence lead to inefficiency and poor firm performance of SOE. The result is consistent with the view that the presence of government control may induce firm to pursue political and social objective rather than economic performance of firm through the remuneration scheme (Hu & Leung 2012).

TABLE 5. Firm performance, directors' remuneration and corporate governance

Regressions	1	2	3
Dependent Variable	ROA		
<i>Intercept</i>	0.480	0.585	<b>-3.709</b> **
	0.775	0.952	<b>-2.354</b>
<i>DREM</i>	-0.040	-0.105	<b>0.291</b> *
	-0.674	-1.577	<b>1.951</b>
<i>BRD_SIZE</i>		<b>0.046</b> **	<b>0.496</b> **
		<b>2.352</b>	<b>2.549</b>
<i>POLCON</i>		0.233	<b>10.323</b> ***
		0.732	<b>2.679</b>
<i>DREM*BRD_SIZE</i>			<b>-0.042</b> **
			<b>-2.322</b>
<i>DREM*POLCON</i>			<b>-0.918</b> ***
			<b>-2.642</b>
<i>SIZE</i>	0.001	0.011	0.020

	0.038		0.286		0.540
<i>DEBT</i>	<b>-0.054</b> ***		<b>-0.055</b> ***		<b>-0.070</b> ***
	<b>-2.714</b>		<b>-2.777</b>		<b>-3.519</b>
<i>Adjusted R-squared</i>	0.060		0.086		0.153
<i>F-statistic</i>	2.495 **		2.575 **		3.347 ***

*Notes:* Please refer to Table 2 for variable's definition and measurement. \*\*\* denotes significant level  $p < 0.01$ , \*\*significant level  $p < 0.05$ , \*significant level  $p < 0.10$ .

Table 6 present the effect of directors' remuneration and corporate governance on firm performance measured by ROE. When first we test the relationship between ROE and directors' remuneration, we find insignificant relationship between these two variables. We then add board size and political connection variables and find that there is significant positive relationship between directors' remuneration and firm performance at 10 percent level. The result indicates that using equity-based performance, directors' remuneration also enhance firm performance of SOE. The result for board size also shows significant positive relationship at 5 percent level rejecting  $H_2$ . Thus, it provides robust evidence that larger board size play an important role in enhancing firm performance of state-owned enterprise in Malaysia.

Nevertheless, when we further test the relationship between firm performance and directors' remuneration by interacting directors' remuneration with board size, all variables show insignificant result. Our result provides evidence that political connection and board size do not influence the relationship between equity-based performance and directors' remuneration. This may suggest that directors' remuneration in SOE in Malaysia is tied to asset-based performance, not to equity-based performance. We believe that equity is more influenced by market value and thus, directors' remuneration in SOE in Malaysia is not tied to market-based performance. The result is consistent with Liang et al. (2015) when they found that state ownership is insignificantly related to market based performance measured by Tobin's Q. The result for control variables show that firm size is negatively related to directors' remuneration indicating that the larger the firm size, the less will be the directors' remuneration in SOE.

TABLE 6. Firm performance, directors' remuneration and corporate governance

Regressions	1	2	3
Dependent Variable	<i>ROE</i>		
<i>Intercept</i>	<b>10.972</b> **	<b>10.591</b> **	18.764
		<b>2.350</b>	<b>1.541</b>
<i>DREM</i>	0.302	<b>0.810</b> *	0.060
		<b>1.761</b>	<b>0.056</b>
<i>BRD_SIZE</i>		<b>-0.403</b> **	-1.244
		<b>-2.501</b>	<b>-0.838</b>
<i>POLCON</i>		0.523	-19.795
		<b>0.197</b>	<b>-0.672</b>
<i>DREM*BRD_SIZE</i>			0.079
			<b>0.581</b>
<i>REM*POLCON</i>			1.849
			<b>0.703</b>
<i>SIZE</i>	<b>-0.806</b> ***	<b>-0.906</b> ***	<b>-0.926</b> ***
		<b>-3.110</b>	<b>-3.121</b>
<i>DEBT</i>	-0.103	-0.118	-0.088
		<b>-0.972</b>	<b>-0.686</b>
<i>Adjusted R-squared</i>	0.033	0.065	0.054
<i>F-statistic</i>	1.781	2.159 **	1.735 *

*Notes:* Please refer to Table 2 for variable's definition and measurement. \*\*\* denotes significant level  $p < 0.01$ , \*\*significant level  $p < 0.05$ , \*significant level  $p < 0.10$ .

## CONCLUSION

We have investigated the effect of directors' remuneration on firm performance in SOE in Malaysia. Based on 118 firm-year observations of SOE, our analysis provide evidence that directors' remuneration enhance SOEs' asset and equity based firm performance. We find evidence that board size and political connection also enhance firm performance suggesting that larger board size and government connection among board of directors in SOE play an important role in enhancing firm performance. The result for board size is applicable to both asset and equity-based performance. The result indicates that larger board size and government control in SOE act as a monitoring tool for SOE to increase their performance. Nevertheless, when we interact political connection and board size with directors' remuneration, the result indicates that both variables moderate the relationship between directors' remuneration and asset-based firm performance. It provide signals that larger board size and political connection in SOE lead to inefficiency as they use their control to pursue their own interest through directors' remuneration, which eventually lead to decrease in firm performance.

Our study provides implications that the presence of larger board size and government connection in SOE may impede the performance of SOE through the directors' remuneration scheme. Without proper remuneration scheme, larger board size and government connected directors may use their control to increase their remuneration in order to pursue their self- interest at the expense of company's performance. Therefore it is a challenge for the SOE in this country to have compensation mechanism that do not influenced by larger board size or political power to ensure that the firm performance can be enhanced and align with the firms' long term objectives. The challenges have been highlighted previously (Dorai Raj 2012) which should be taken seriously to regulate the SOE in Malaysia. OECD principles on corporate governance of state-owned enterprise stress that it is the responsibility of state to establish a clear remuneration policy for SOE boards that fosters the long- and medium-term interest of the enterprise and can attract and motivate qualified professionals (OECD 2015). The result also indicates that basically the performance of SOE in Malaysia is more incline to asset-based performance rather than equity based performance.

This study only focuses on SOE that are privately owned by the state. Therefore it may not generalize to public listed SOE. The use of the sample also limits our test as a lot of the governance variables are not disclosed. The only governance variable that we can test is board size. Future research may compare the performance of SOE with non-SOE based on certain criteria to highlight the difference between government and non-government owned companies. Future research could also test performance of SOE using other financial reporting quality measurement such as earnings management and conservatism. The data may also suffer with the problem of endogeneity since there is limitation of data to cater for this issue. This is because it is not mandatory for SOE in Malaysia to submit their financial report to the regulators. Nevertheless, we believe that our study provide initial evidence on the effect of governance and role of government on the firm performance among the SOE in Malaysia.

## ENDNOTE

- <sup>1</sup> defined as owned in more than 50% by the state

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